EQUIP'FLUIDES

TIL09 FLARES – USER'S MANUAL

This user's manual refers to the TIL09 torches equipped with flame arrestor type EQF0625.
This manual does not cover all the safety measures that should be cry out for installation, use, and maintenance of equipments for LPG.

Warning: Please inspect the torch regularly and replace any defective part. PLEASE NEVER USE THE TORCH UP IN CONFIGURATION FOR VAPOR BURNING IF YOU WANT TO BURN LIQUID LPG.

Generalities :

TIL09 flares are designed to burn vapor and liquid phases of LPG bulk tanks.
TIL09 flares up in configuration for vapor burning are complying with the recommendation N° MAGV/RP02 issued by the French comity for Butane and propane (CFBP)
These flares could be equipped with an optional liquid firing head allowing complete burning of liquid LPG (part N° TIL07TL).

The flare up in configuration for vapor burning is equipped with :

- 1x flame arrestor with 2 security levels (part N°TIL07AF2): It prevents flashbacks to the tank.
- 1x flare with vapor firing head and complete flame hider.
- 1x ignition and permanent standby torch coupled to a standard 13kg cylinder with a flexible hose: Allows remote ignition of the flare.
- 1x anti-blowing system mounted on the firing head: Prevents blowing of the flame.
- 1x stainless steel flexible hose (overall lenght 20m): For permanent standby torch feeding.

Technical caracteristics : working pressure= 3.5 bars (Flame arrestor)
Working temp.= -20/+60°C

Security :

PLEASE RESPECT ALL THE RULES AND SECURITY INFORMATIONS IN EFFECT DURING A BURNING OPERATION.
SYSTEMATICALLY ISOLATE THE REST OF THE INSTALLATION BEFORE ANY INTERVENTION.
WARNING: NEVER WORK ON THE FLARE DURING BURNING OPERATION.
PLEASE WAIT FOR COMPLETE COOLING OF THE FLARE BEFAORE ANY INTERVENTION.
NON REPECT OF THIS ADVERTISEMENT MAY CAUSE INJURY.

Routine maintenance :

- If the flare shall not be used for a long time. Please close the holes of the flame arrestor.
- Check the state of cleanliness of the vapor firing head. (Any dirties could obstruct the mesh of the anti-blowing system. If needed, please use an explosion proof brush to clean the mesh.
- The safety devices should be tested once a year.
- Only the manufacturer is able to do this tests.
- Any repair should be done only by the manufacturer.
- Please follow user's manual instructions of the flame arrestor.

When the user or his representative, decide on his own responsibility to proceed to the repair or to the modification, this may cause cancellation of the warranty and any liability of Equip'Fluides is excluded.

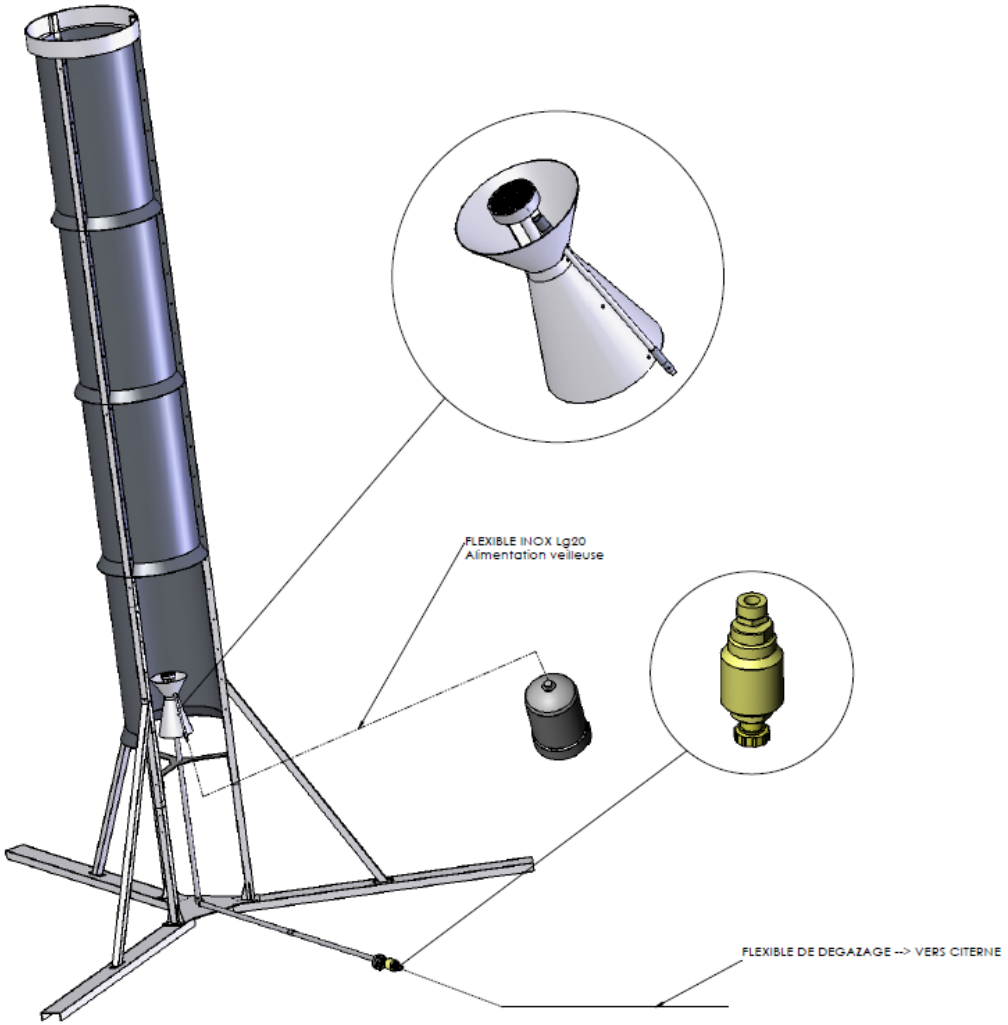
Assembly:

The TIL09 flare is supplied in kit ready to be mounted.
Please follow instructions on the assembly note.
RECOMMENDATION : Parts of the TIL09 flare are supplied without any treatment.
We recommend to the user to paint all the parts non submitted to the heat.

Installation :

- Position the flare on a stable place at reasonable distance from any flammable product.
- We recommend to fix the flare on the ground (Use cables and/or screw the base on the ground).
- **Respect the rules and security informations in effect.**

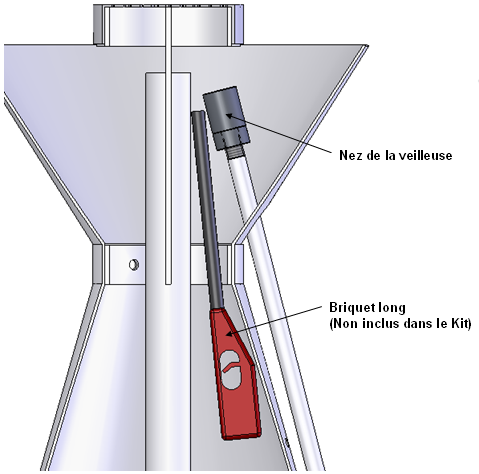
- Mount the 2 horizontal extension tubes.
- Mount the flame arrestor on the male ACME coupling at the end of the enstension.
- RESPECT THE DIRECTION OF THE FLOW WRITTEN ON THE FLAME ARRESTOR (See flame arrestor user's manual)
- DO NOT USE THE FLAMME-ARRESTOR TO BURN LIQUID LPG (voir page suivante).
- Mount liquid firing head.
- Connect the feeding flexible hose of the permanent standby torch to a standard 13 kg cylinder (20x150 threaded coupling).
- Connect the other end of the flexible hose to the permanent standby torch. (Quick coupling)
- Connect the main feeding flexible hose to the male acme coupling of the flame-arrestor.

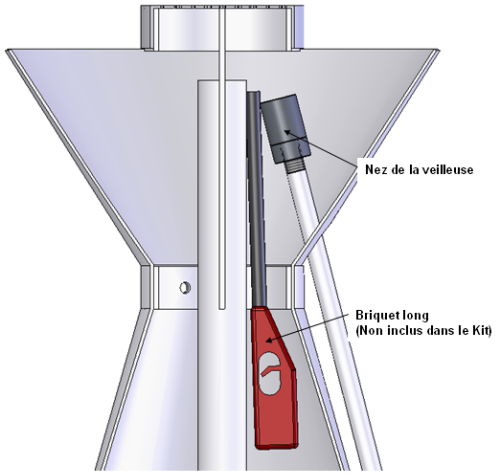


Commissioning :

Open feeding valve on the permanent standby torch.

Position the flame of the long lighter at the bottom of the outlet of the vapor firing head.





- To start burning, open the feeding valve of the flare (usually mounted on the main flexible hose, not supplied with the flare)

- Start the burning at a lower flowrate for 5 to 10 minutes, in order not to constrain the structure by a too rapid rise in temperature.

EQUIP'FLUIDES

EQF0625BT FLAME ARRESTOR – USER'S MANUAL

This user's manual refers to the EQF0625BT flame arrestor which equips TIL07 and TIL09 flares or any other LPG pipelines.
This manual does not cover all the safety measures that should be cry out for installation, use, and maintenance of equipments for LPG.

Warning: Please inspect the flame arrestor regularly.
Replace any defective flame arrestor. PLEASE NEVER USE THIS FLAME ARRESTOR WHEN BURNING LIQUID LPG.

Generalities :

The flame arrestor EQF0625BT is designed to prevent any flashback to the tank.
This flame arrestor is equipped with 2 security devices:

- 1x non-return valve: It prevents return of the gaz in the opposite direction of the normal gas flow.
- 1x valve melt: which cut off the gas flow in case of flashback.

Technical caracteristics : working pressure= 3.5 bars Working temp.= -20/+60°C

INSTALLATION:

RESPECT INDICATIONS MARQUED ON THE FLAME-ARRESTOR.
Check that the operators are properly trained before any installation or inspection and read carefully the precautions for use.

EQF0625BT flame arrestors may be installed by well trained operators under the respect of regulations for LPG equipments and in compliance with the regulations effective in the country where the flame arrestor will be placed.

Check that all sealing surfaces and threads are clean and flawless.
Respect the type of connection: 1" NPT or 1"3/4 ACME if the flame arrestor is supplied with ACME male and female couplings.

When installing a flame arrestor, respect the mounting direction.
An arrow marked on the flame arrestor indicates the flow direction.

This device may be mounted only on clean and fully functional installations.
After any repair on the pipelines, these must be served and checked.
Install a cut off valve on each ends of the flame arrestor.

It should not be any water or any liquid in the pipeline. On the contrary case the device could be damaged.

Only one pipeline can be connected to the flame arrestor.

PAfter complete installation, check the sealing of each connections.

Routine maintenance :

- If the flare shall not be used for a long time. Please close the holes of the flame arestor.
- Check the state of cleanliness of the vapor firing head. (Any dirties could obstruct the mesh of the anti-blowing system. If needed, please use an explosion proof brush to clean the mesh.
- The safety devices should be tested once a year.
- Only the manufacturer is able to do this tests.
- Any repair should be done only by the manufacturer.
- Please follow user's manual instructions of the flame arrestor.

When the user or his representative, decide on his own responsibility to proceed to the repair or to the modification, this may cause cancellation of the warranty and any liability of Equip'Fluides is excluded.

ROUTINE MAINTENANCE:

If the installation or the flare shall not be used for a long time. Please close the holes of the flame arrestor.
The safety devices should be tested once a year.
Only the manufacturer is able to do these tests.
The flame arrestor is equipped with a dust filter. Use only Equip'Fluides original dust filters for EQF0625BT flame arrestors.

When the user or his representative, decide on his own responsibility to proceed to the repair or to the modification, this may cause cancellation of the warranty and any liability of Equip'Fluides is excluded.

Commissioning :
Open feeding valve on the permanent standby torch.

Position the flame of the long lighter at the bottom of the outlet of the vapor firing head.

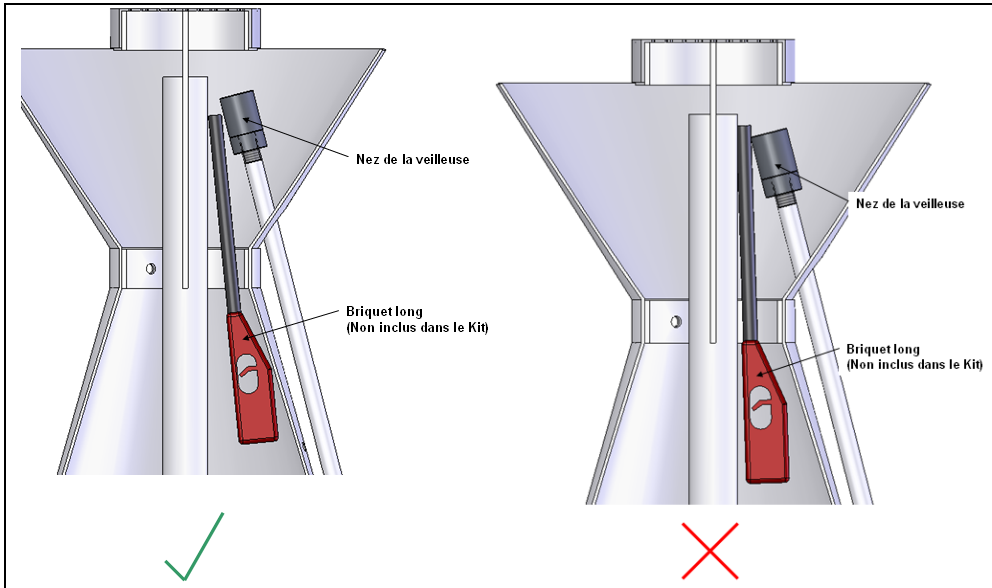
Failures : no gas flow.

a) flash back due to defective burner
b) Flashback due to too low flowrate
Check if the devices is suitable with the installation
The device could be obstructed by dirties or liquid going from the pipline. The device should be repaired by the manufacturer

c) The melt valve has reacted and gas flow is stopped.
It is not possible to see if the melt valve has reacted. The device should be repaired by the manufacturer.

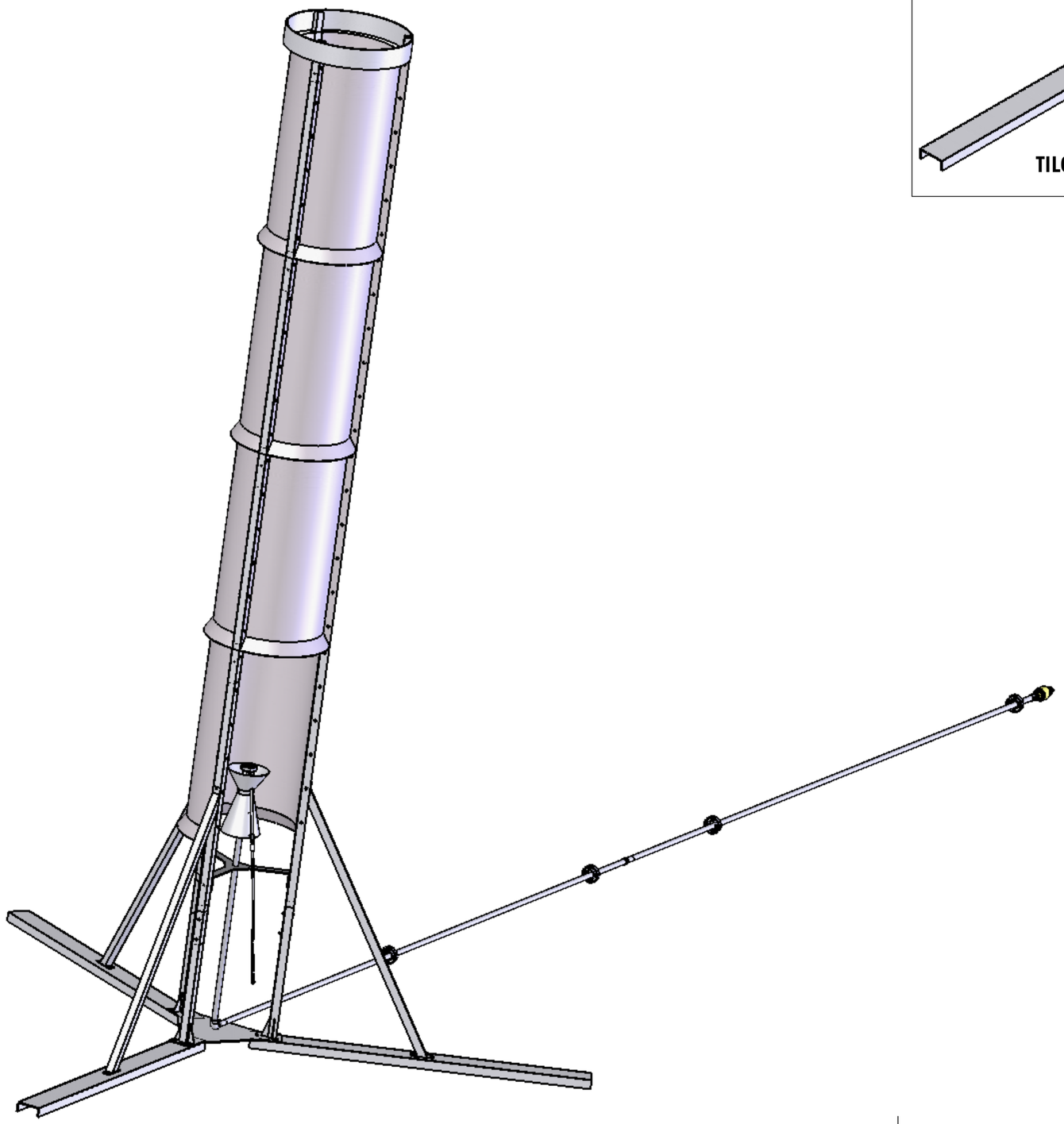
If a flashback occurred, the flame arrestor and the whole installation should be inspected to find out the reason of the flashback.

A flame arrestor which has reacted should be changed.



- To start burning, open the feeding valve of the flare (usually mounted on the main flexible hose, not supplied with the flare)

- Start the burning at a lower flowrate for 5 to 10 minutes, in order not to constrain the structure by a too rapid rise in temperature.



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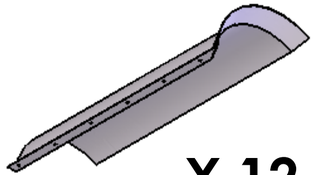
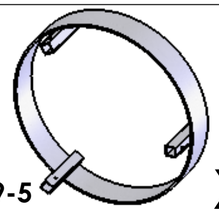
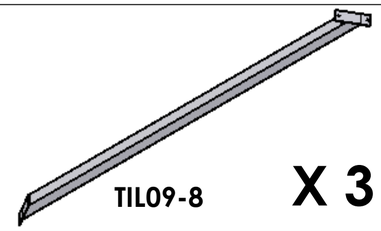


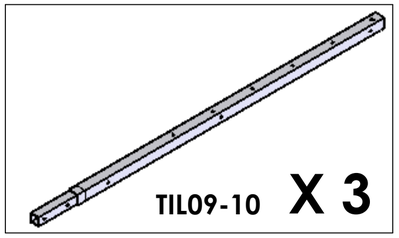
TIL09-7 X 12



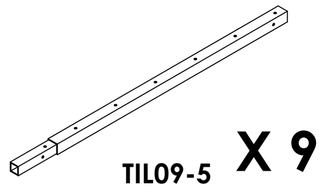
TIL09-5 X 1



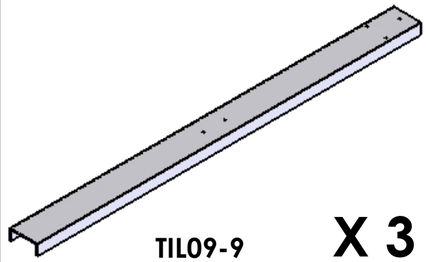
TIL09-8 X 3



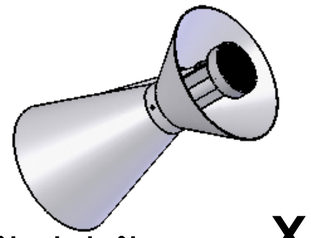
TIL09-10 X 3



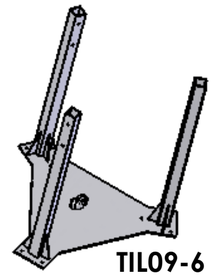
TIL09-5 X 9



TIL09-9 X 3



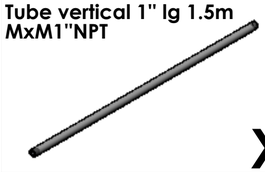
Tête de brûlage X 1



TIL09-6 X 1

RD83F X 1

Tube vertical 1" lg 1.5m
MxM1"NPT

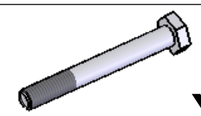


X 1

RD83 X 1

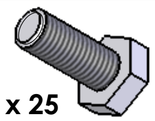
Rallonges 1" lg 6m
MxF1"NPT

X 2



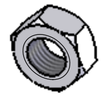
Vis M10 x 80 X72

TIL07AF2 X 1



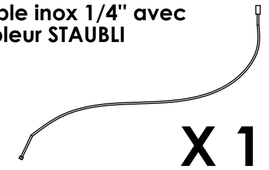
VIS M10 x 25 X15

Cale X 4



ECROU M10 X 72

Flexible inox 1/4" avec
coupleur STAUBLI



X 1

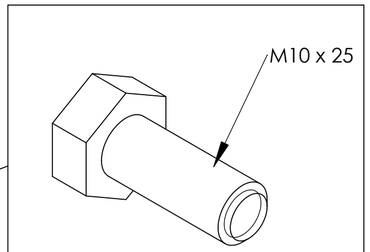
Rev:	Objet de la modification	Date :	Par:
Matière: XXXXXXXXXX	Traitement: XXXXXXXXXXXXX		Rev.
Dess: JDP	Date : 09/03/09	MONTAGE TIL09 CONTENU DU KIT	A
	A2 Echelle : 1 / 10		

EQUIP' FLUIDES
2 Rue Lavoisier
77465 LAGNY S/ MARNE
01.64.12.46.08 - 01.64.30.94.17

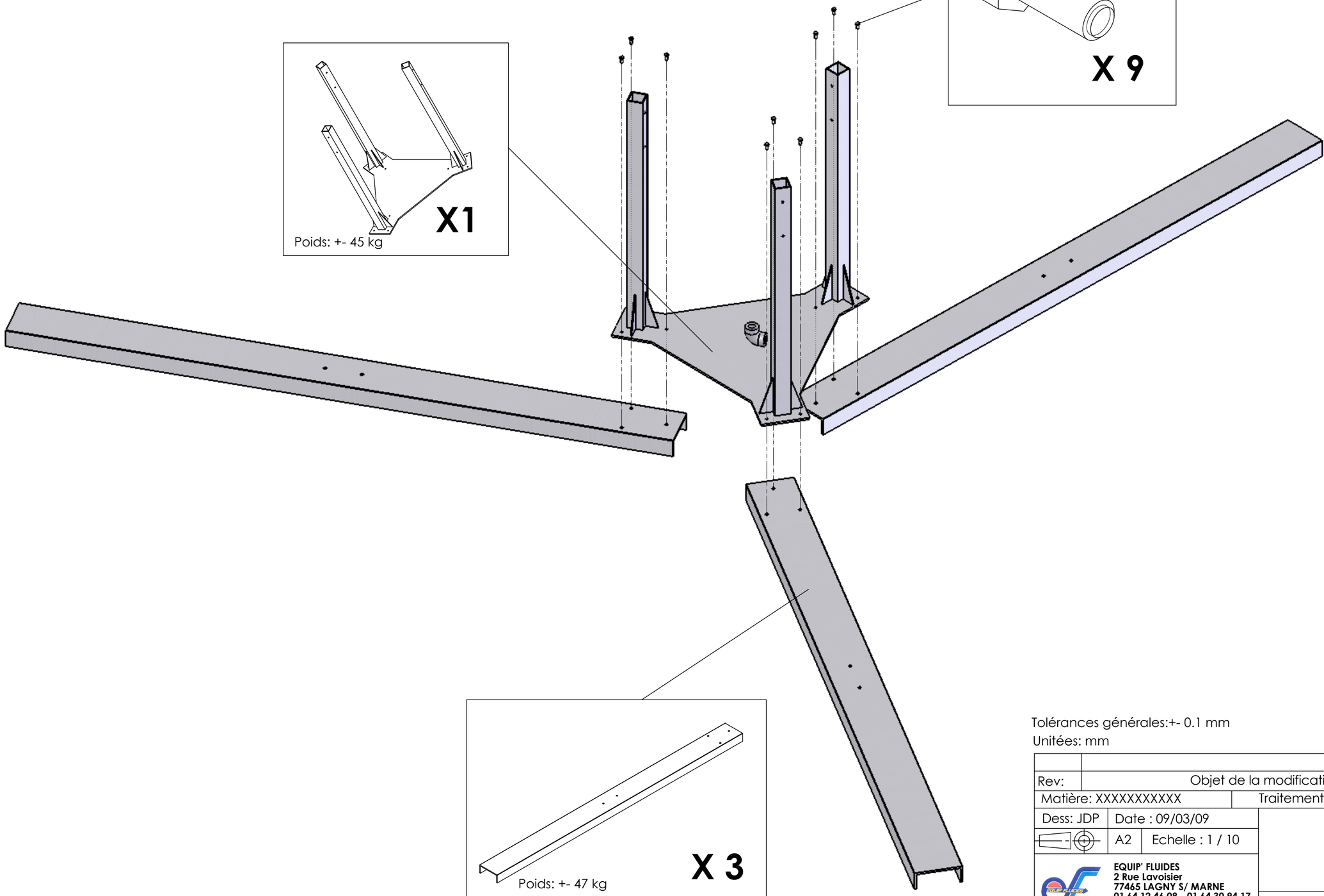
REF PLAN : MONT TIL09 / KIT

X1

Poids: +- 45 kg



X 9



X 3

Poids: +- 47 kg

Tolérances générales:+- 0.1 mm
Unitées: mm

Rev:	Objet de la modification	Date :	Par:
Matière: XXXXXXXXXX	Traitement: XXXXXXXXXXXXX		Rev.
Dess: JDP	Date : 09/03/09		
A2	Echelle : 1 / 10		

MONTAGE TIL09
ETAPE 1

A

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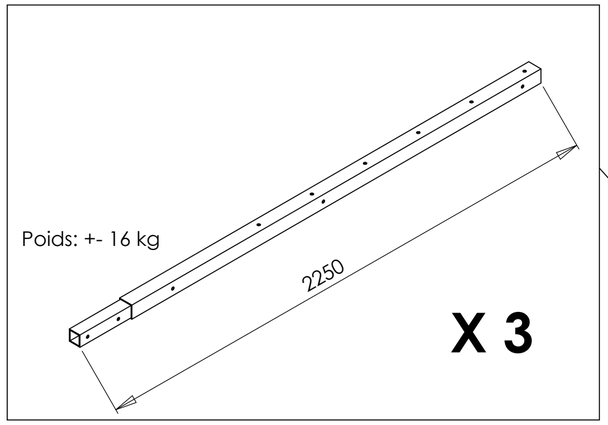
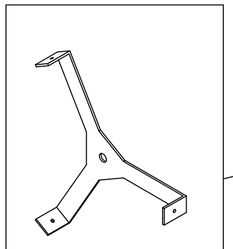
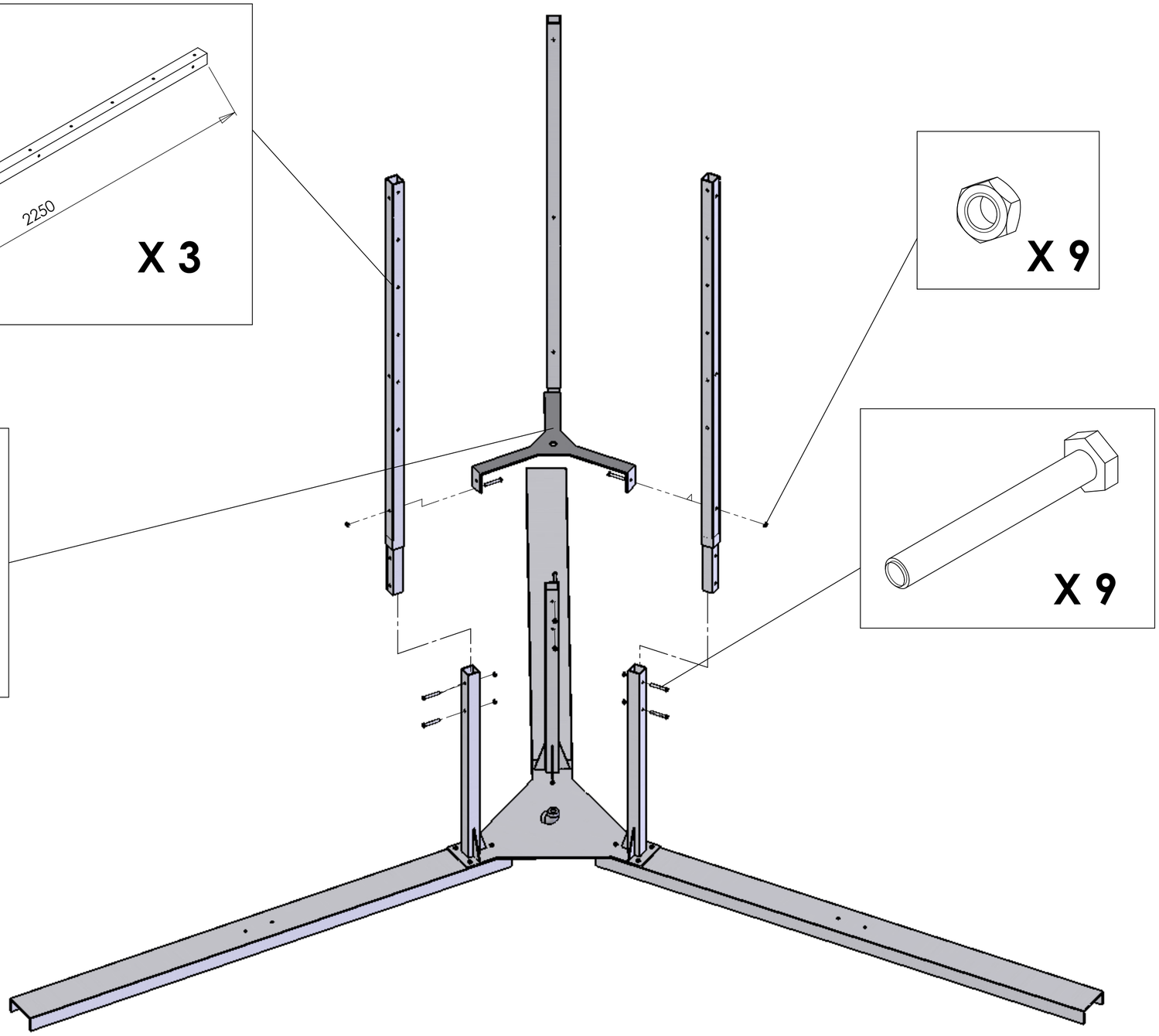
REF PLAN : MONT TIL09 / 1







Tolérances générales:+- 0.1 mm
Unitées: mm

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Matière: XXXXXXXXXXX	Traitement: XXXXXXXXXXXXX	Rev.
Dess: JDP	Date : 09/03/09	
A2	Echelle : 1 / 15	

MONTAGE TIL09
ETAPE 2

A

EQUIP' FLUIDES
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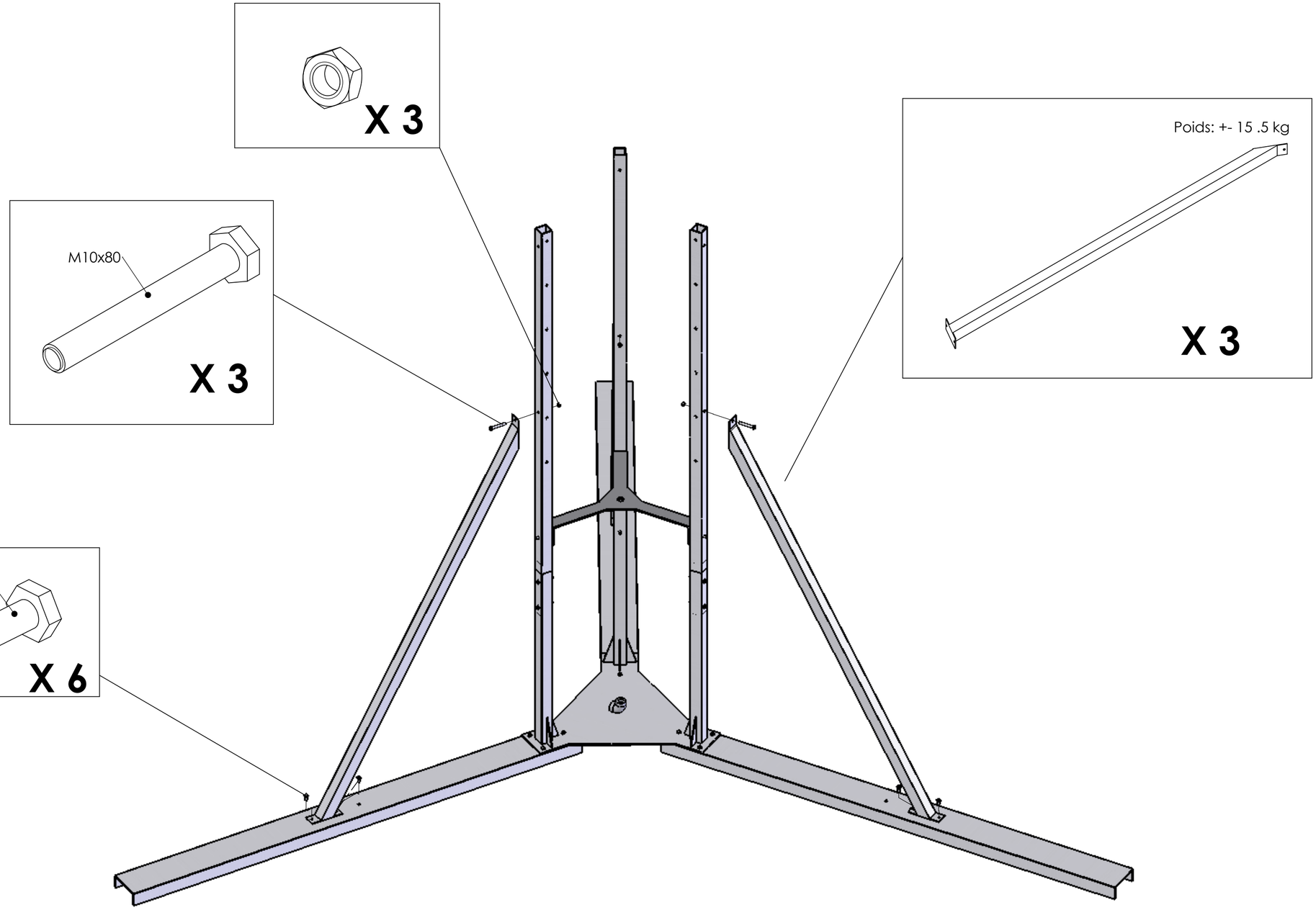
77465 LAGNY S/ MARNE
01.64.12.46.08 - 01.64.30.94.17

REF PLAN : MONT TIL09 / 2

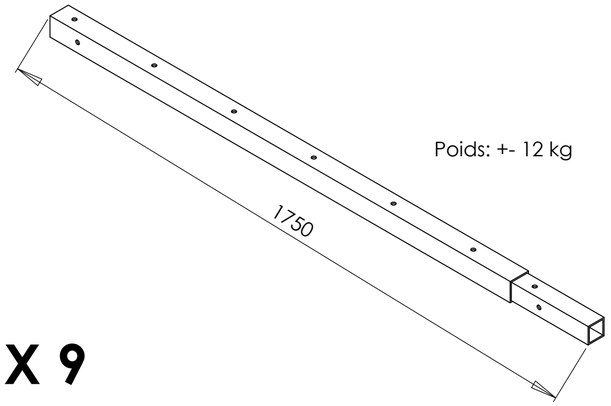


Tolérances générales:+- 0.1 mm
Unitées: mm

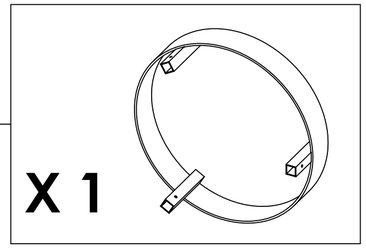
Rev:	Objet de la modification	Date :	Par:
Matière: XXXXXXXXXX	Traitement: XXXXXXXXXXXXX		Rev.
Dess: JDP	Date : 09/03/09		
A2	Echelle : 1 / 10	MONTAGE TIL09 ETAPE 3	A

EQUIP' FLUIDES
2 Rue Lavoisier
77465 LAGNY S/ MARNE
01.64.12.46.08 - 01.64.30.94.17

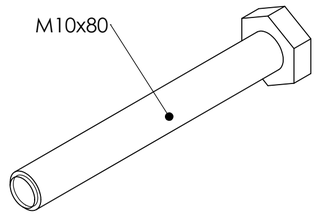
REF PLAN : MONT TIL09 / 3



X 9

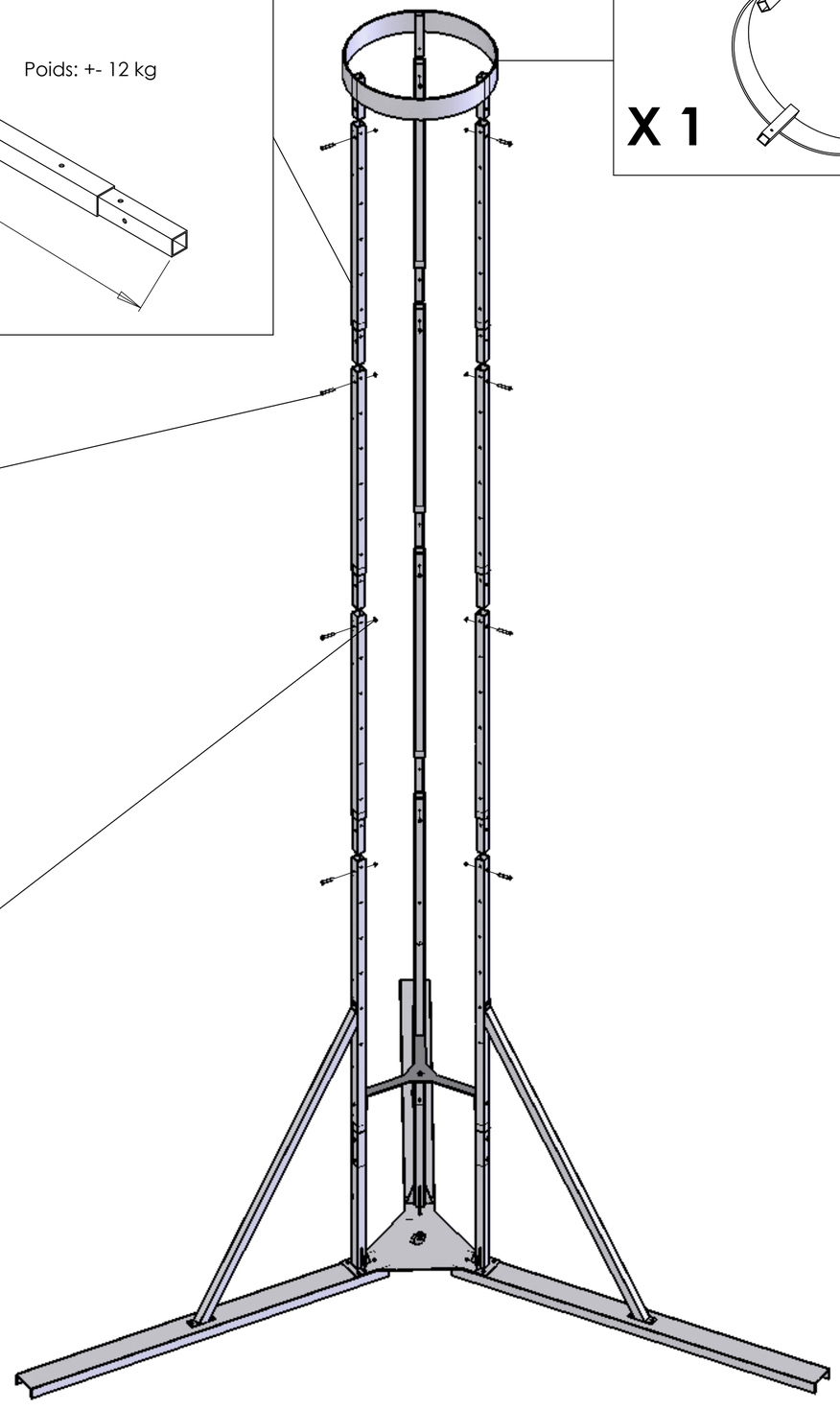


X 1



X 12

X 12



Tolérances générales:+- 0.1 mm
Unitées: mm

Rev:	Objet de la modification	Date :	Par:
Matière: XXXXXXXXXXX	Traitement: XXXXXXXXXXXXX		Rev.
Dess: JDP	Date : 15/07/09		
A2	Echelle : 1 / 21	**MONTAGE TIL09 ETAPE 4**	**A**

EQUIP' FLUIDES
2 Rue Lavoisier
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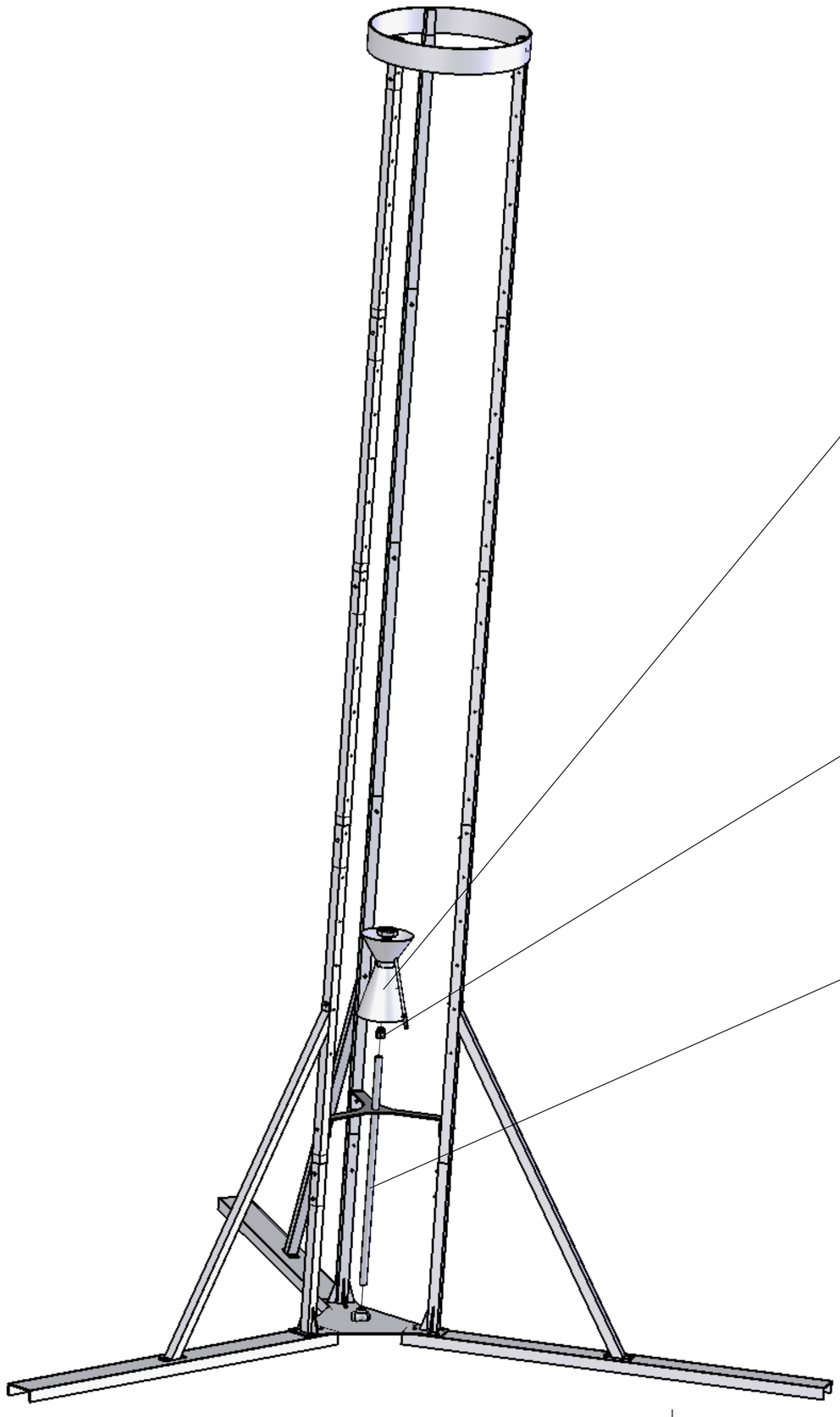
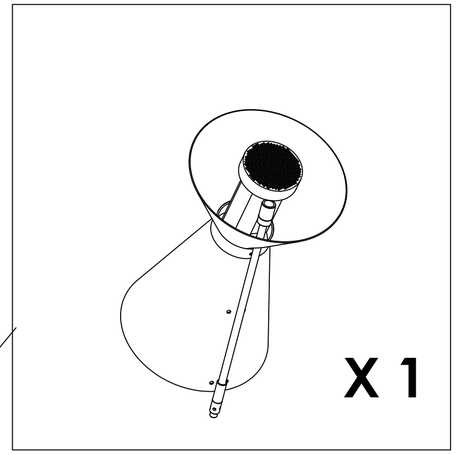
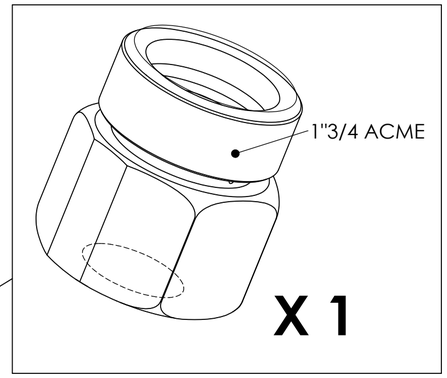
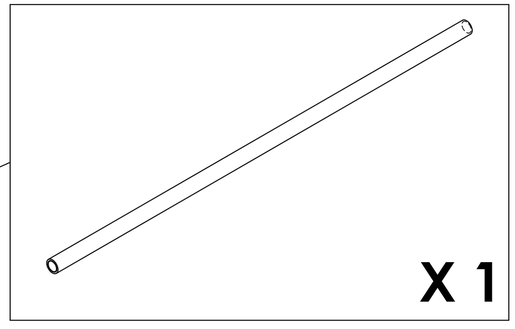
01.64.12.46.08 - 01.64.30.94.17

REF PLAN : MONT TIL09 / 4









Tolérances générales:+- 0.1 mm
Unitées: mm

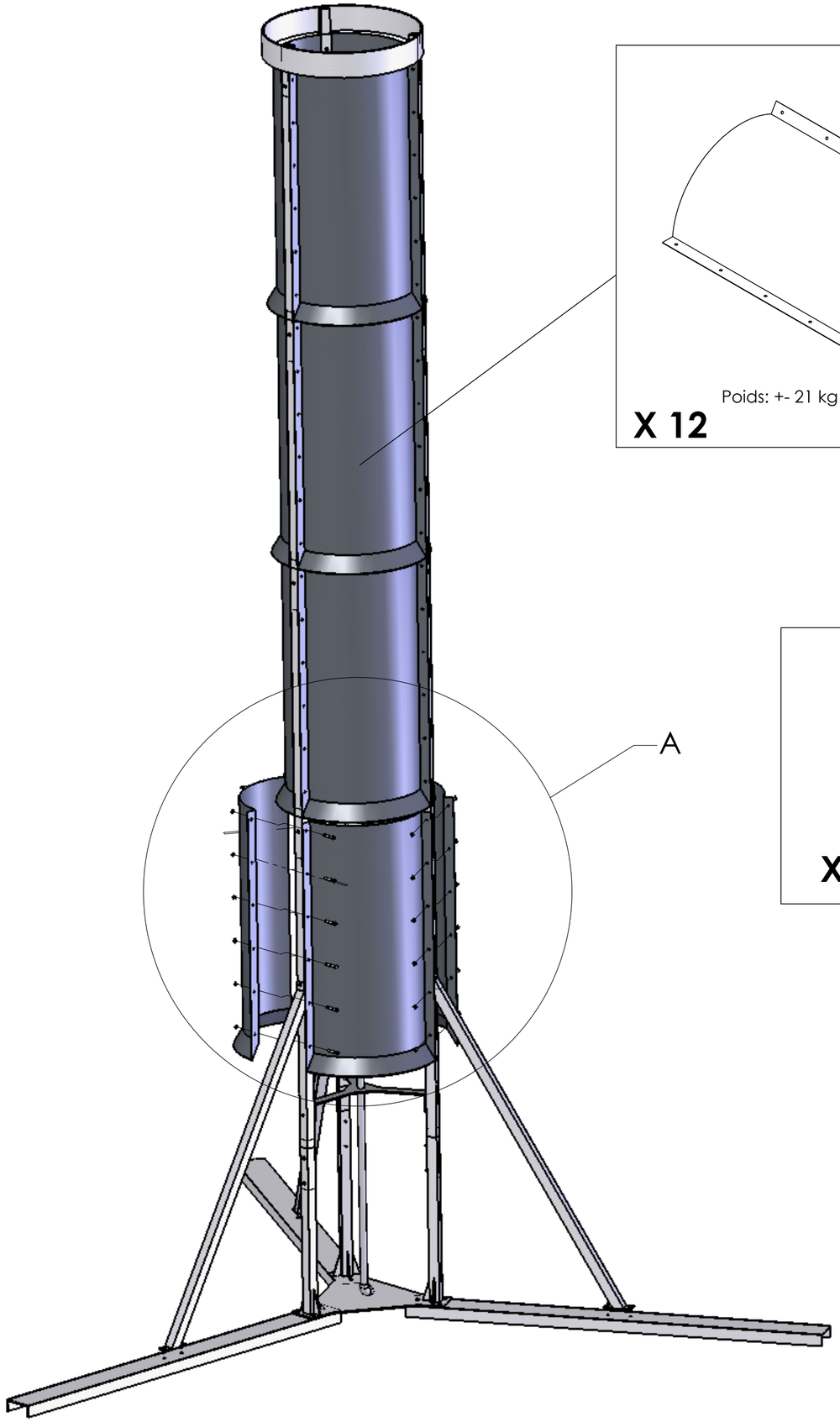
Rev:	Objet de la modification	Date :	Par:
Matière: XXXXXXXXXX	Traitement: XXXXXXXXXXXXX		Rev.
Dess: JDP	Date : 15/07/09		
A2	Echelle : 1 / 21		

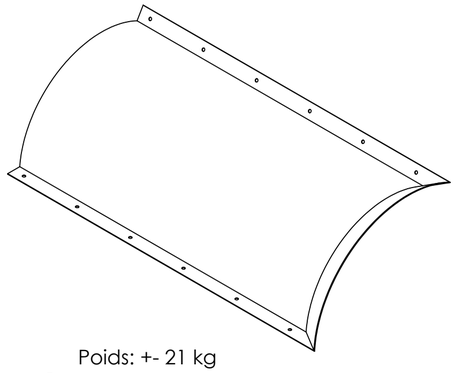
EQUIP' FLUIDES
2 Rue Lavoisier
77465 LAGNY S/ MARNE
01.64.12.46.08 - 01.64.30.94.17

MONTAGE TIL09
ETAPE 5

REF PLAN : MONT TIL09 / 5

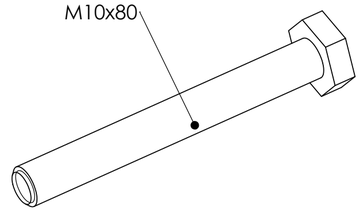
A



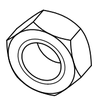


Poids: +- 21 kg

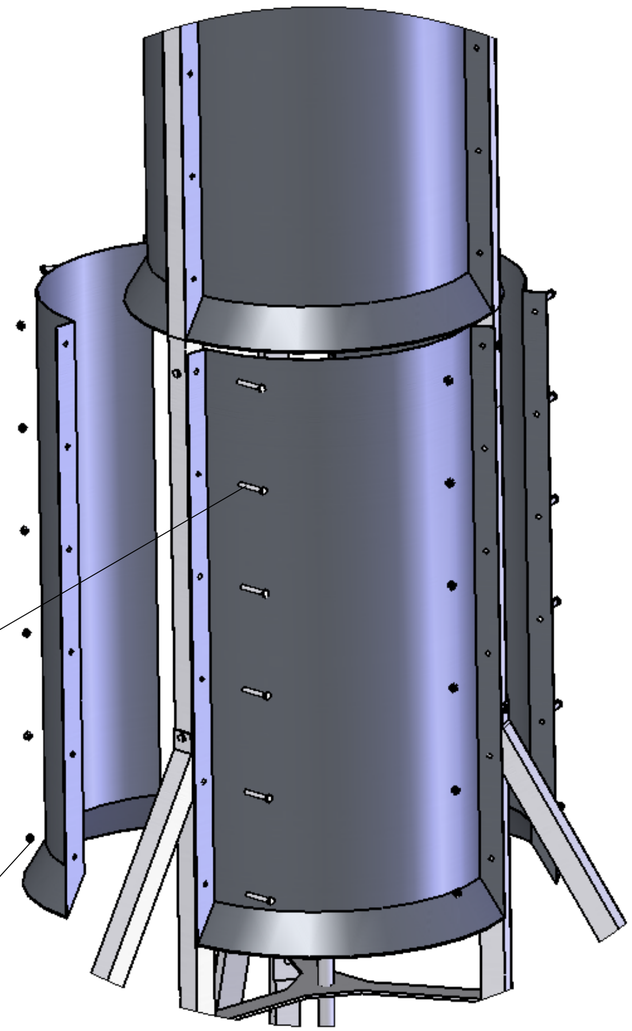
X 12



X 18



X 18



DÉTAIL A
ECHELLE 2 : 21

Tolérances générales:+- 0.1 mm
Unitées: mm

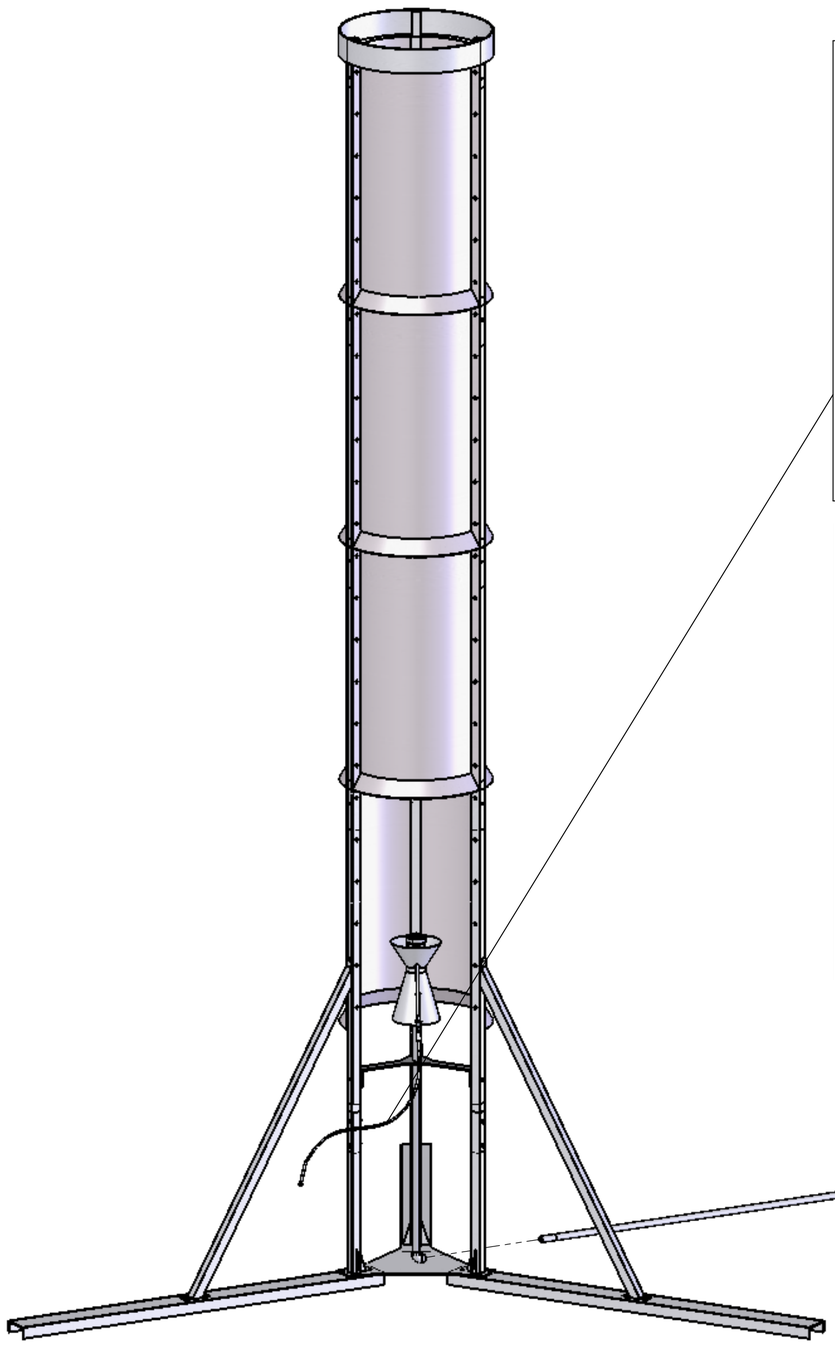
Rev:	Objet de la modification	Date :	Par:
Matière: XXXXXXXXXXX	Traitement: XXXXXXXXXXXXX		Rev.
Dess: JDP	Date : 15/07/09		
A2	Echelle : 1 / 21		

EQUIP' FLUIDES
2 Rue Lavoisier
77465 LAGNY S/ MARNE
01.64.12.46.08 - 01.64.30.94.17

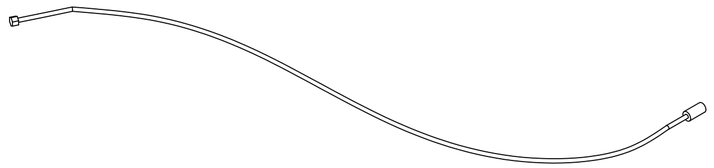
MONTAGE TIL07
ETAPE 6

REF PLAN : MONT TIL09 / 6

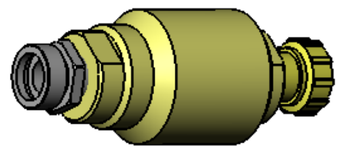
A



Flex inox 1/4" lg 20m avec coupleur STAUBLI

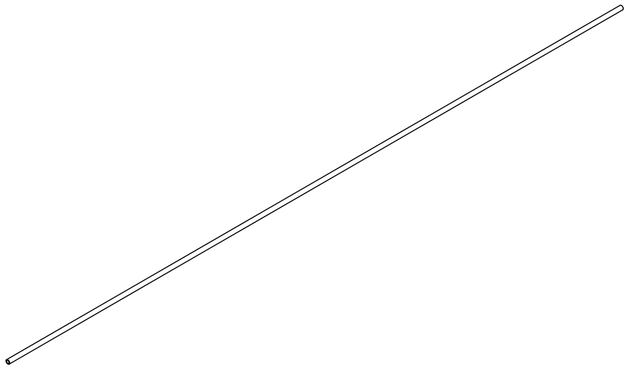


X 1

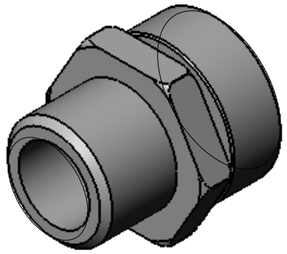


TIL07AF2

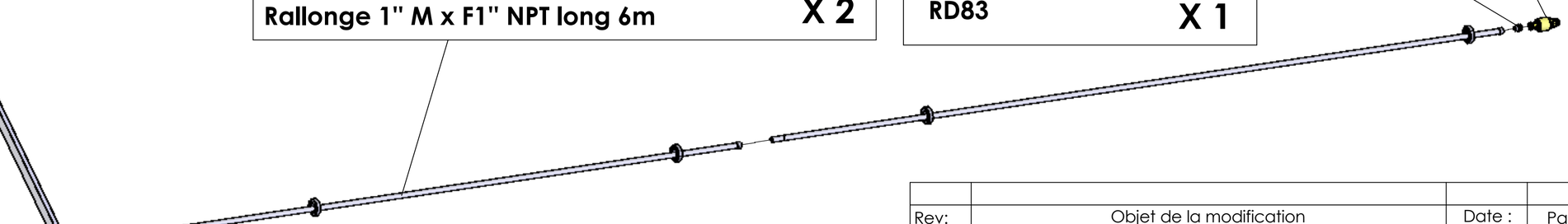
X 1



Rallonge 1" M x F1" NPT long 6m **X 2**



RD83 **X 1**



Rev:	Objet de la modification	Date :	Par:
Matière: XXXXXXXXXX	Traitement: XXXXXXXXXXXXX		Rev.
Dess: JDP	Date : 15/07/09		
	A2 Echelle : 1 / 21		

EQUIP' FLUIDES
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77465 LAGNY S/ MARNE
01.64.12.46.08 - 01.64.30.94.17

MONTAGE TIL07
ETAPE 7

REF PLAN : MONT TIL09 / 7

A